

## ABSTRACT OF THE DISCLOSURE

A reference output characteristic of a photovoltaic power system at the time of normal operation is obtained in accordance with an installation condition (topography of installation site, meteorological condition, configuration of the system itself, or the like) of the photovoltaic power system, an output characteristic in the photovoltaic power system during operation is actually measured, the obtained reference output characteristic and the measured output characteristic are compared and, based on the comparison result, the normality/abnormality of the output is diagnosed and, at the same time, the cause is diagnosed in the case of abnormality. The reference output characteristic at the time of normal operation can also be obtained based on the measured value of the past output characteristic.